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CT-5	86	Purge	9.60	9.70	469	2.60	-522
CT-4	@12:50	Insitu	10.47	10.10	373	0.08	-739

[0044] Low-flow purge is an established technique to sample groundwater. According to low-flow purge, groundwater is pumped from subsurface to surface. The process of bringing groundwater to the surface, however, alters many of the monitoring parameters. TABLE 2 compares data collected from both a low-flow purge (purge) and in-well data logging sensor probes for three monitoring events over a three month period. The in-well sensor probes provided continuous data shown in FIGs. 5 to 12.

## IN THE CLAIMS:

Please rewrite claims 6 to 8, 14, 52 to 54 and 58 to 66 as follows:

- 6. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by a  $\pm$  20 feet wide horizontal plane that transcribes at least one upstream monitoring well and at least one down-stream well at a level that is  $\pm$  5 feet of an open screen interval mid point of each well.
- 7. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by  $a \pm 10$  feet wide horizontal plane that transcribes at least one upstream monitoring well and at least one down-stream well at a level that is  $\pm 3$  feet of a mid point of an open screen interval mid point of each well.
- 8. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by a  $\pm$  6 feet wide horizontal plane that transcribes at least one upstream monitoring well and at least one down-stream well at a level that is  $\pm$  1 feet of an open screen interval mid point of each well.





The method of claim 1, comprising determining flow of contaminated aqueous medium up-gradient, down-gradient and transecting a PRB zone, placing monitoring wells along the flow of contaminated medium and conducting the in-well monitoring with the monitoring wells, wherein at least one monitoring sensor is placed in-well up-gradient of the PRB zone, at least one monitoring sensor is placed in-well down-gradient of the PRB zone and at least one monitoring sensor is placed within the PRB zone.

- 52. The system of claim 51, wherein the transect is defined by  $a \pm 20$  feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is  $\pm 5$  feet of an open screen interval mid point of each well.
- 53. The system of claim 51, wherein the transect is defined by  $a \pm 10$  feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is  $\pm 3$  feet of an open screen interval mid point of each well.
- 54. The system of claim 51, wherein the transect is defined by  $a \pm 6$  feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is  $\pm 1$  feet of an open screen interval mid point of each well.
- 58. The system of claim 57, further comprising a communication link that interconnects the collector and the monitor, the communication link capable of transmitting the signal to enable a user at the monitor to obtain information concerning the contaminant.
- 59. The system of claim 58, wherein the communication link comprises a web connection.
- 60. The system of claim 58, wherein the communication link comprises a network.





- 61. The system of claim 58, wherein the communication link comprises at least one selected from the group consisting of a phone modem connection, radio communication connection, network communication connection, wireless communication system connection, cellular communication connection, satellite communication connection, web connection and Internet connection.
- 62. The system of claim 58, further comprising a two-way communicator between the collector and the sensor to permit selection, activation, de-activation, modification, fine-tuning, manipulation or resetting of the sensor.
- 63. The system of claim 58, wherein the sensor comprises at least one selected from the group consisting of a vapor sensor, chemical sensor, fiber optics sensor, acoustic wave sensor solid-state sensor, metal oxide sensor and an electrochemical sensor.
- 64. The system of claim 44, comprising a plurality of sensors emplaced in a respective plurality of wells arranged substantially along a transect to the PRB zone.
- 65. The system of claim 44, comprising a plurality of sensors emplaced in a respective plurality of wells arranged substantially along a longitudinal axis of the PRB zone facing flow of the contaminated aqueous medium.

66. A system, comprising:

a PRB zone to treat a contaminated groundwater; and

a sensor located substantially along a PRB zone transect of flow of the contaminated groundwater from an up-gradient location, across the PRB zone to a down-gradient-location.

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